CLAIMS

1. An electric power steering apparatus for assisting steering by transmitting rotation of a steering assist motor to a steering mechanism via a driving gear and a driven gear having a ring-shaped tooth body made of synthetic resin meshing with said driving gear and a support body made of metal engaged with an interior side of said tooth body, the support body comprising:

a corrugated cylinder part press-formed to have a plurality of concavities on an exterior side thereof and convexities to an interior side formed by said concavities which are arranged in a peripheral direction; and

a plate part an edge of which is united with an end of said corrugated cylinder part.

2. The electric power steering apparatus according to Claim 1, wherein the corrugated cylinder part is bent at a first ring groove part which is provided at the edge of the plate part.

3. The electric power steering apparatus according to Claim 2,

the support body further comprising a mounting cylinder part which is bent at an interior edge of the plate part to be concentric with the corrugated cylinder part,

wherein the mounting cylinder part is bent at a second ring groove part which is provided at an interior edge of the plate part.

4. The electric power steering apparatus according to Claim 3, the support body further comprising a ring concavity part which is provided at one end of the corrugated cylinder part.

5. A method of manufacturing a gear to be attached to a transmitting shaft for transmitting rotation of a steering assist motor to a steering mechanism, comprising steps of:

providing a corrugated part by performing press forming on an outer peripheral side of a metal plate having a plate part on a center side to have a plurality of concavities at one face thereof and convexities to the other face side formed by said concavities which are arranged in a peripheral direction;

providing a corrugated cylinder part by bending said corrugated part into a cylindrical form with respect to the plate part; and

integrally molding a ring-shaped tooth body made of synthetic resin on an exterior side of said corrugated cylinder part.

6. The method of manufacturing the gear according to Claim 5, wherein the corrugated cylinder part is bent at a first ring groove part which is provided at an edge of the plate part.

7. The method of manufacturing the gear according to Claim 6,

further comprising a step of forming a mounting cylinder part by performing press forming on a center side of the metal plate,

wherein the mounting cylinder part is bent at a second ring groove part which is provided at an interior edge of the plate part.

8. The method of manufacturing the gear according to Claim 7,

further comprising a step of providing a ring concavity part from the corrugated part to an exterior edge,

wherein the tooth body is molded by filling synthetic resin from one end part of the corrugated cylinder part to an exterior side peripheral and the ring concavity part.